South Dakota Science and Technology Authority

Homestake

History, Progress and Future Plans

David Snyder

Executive Director

History

- Preferred site for DUSEL
- Agreement in Principle Jan 2004
- 2004 legislative session
  - Created Authority
  - Indemnity and immunity statutes
  - Funded $14.3M
- NSF announced solicitation
- Solicitation released September 2004

History

- Submitted S2 solicitation proposal Feb 2005
- 7 additional submissions
- NSF down selected to Homestake and Henderson July 2005
- Awarded $500,000 for CDR due June 2006

History

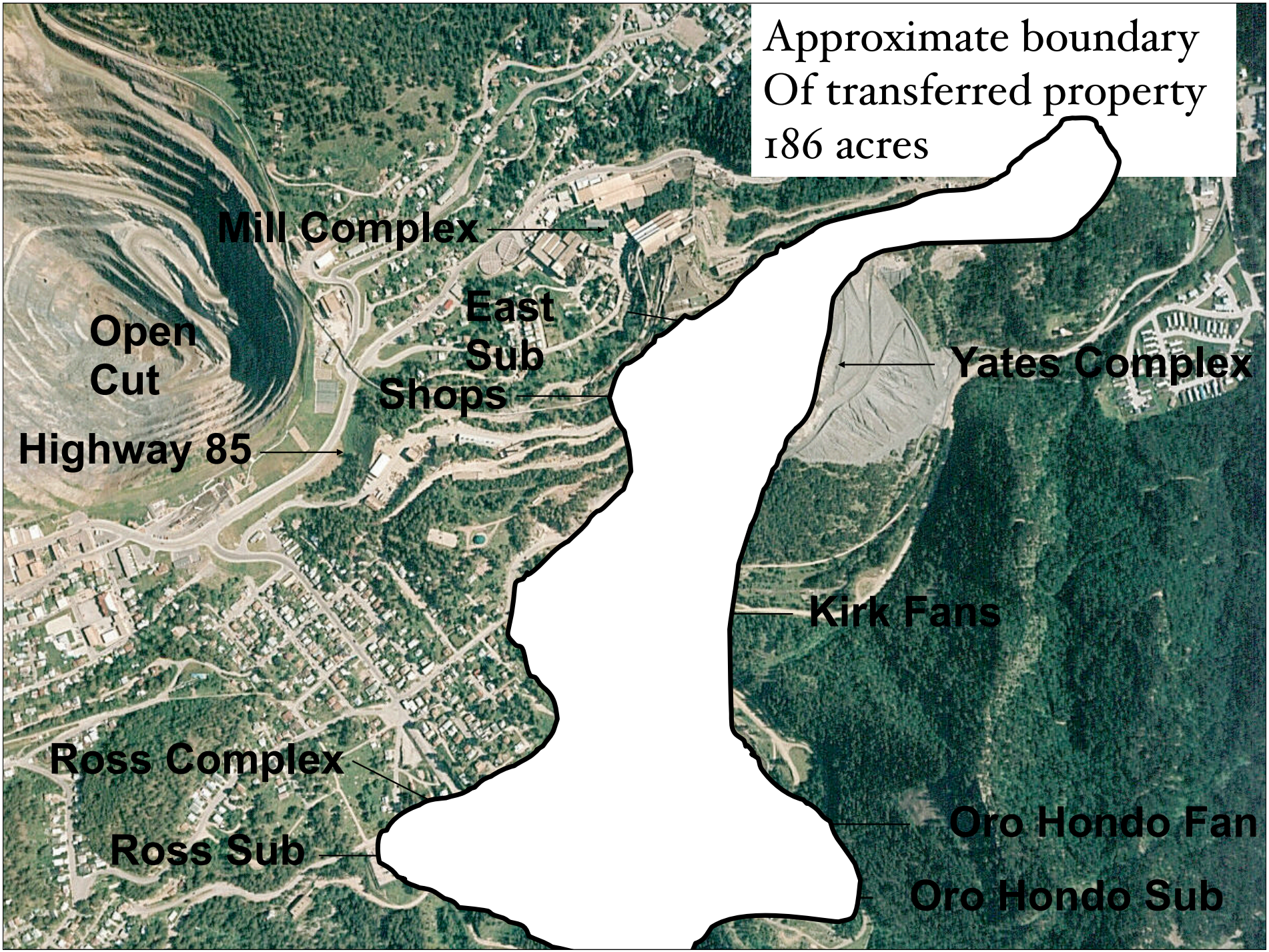
- Amendment to Agreement in Principle Sep 2006
- Special legislative session appropriates
- $19.9M Oct 2006
- Solicitation of letters of interest Nov 2006
- Initiate preparation of closing agreement with Barrick Nov 2006

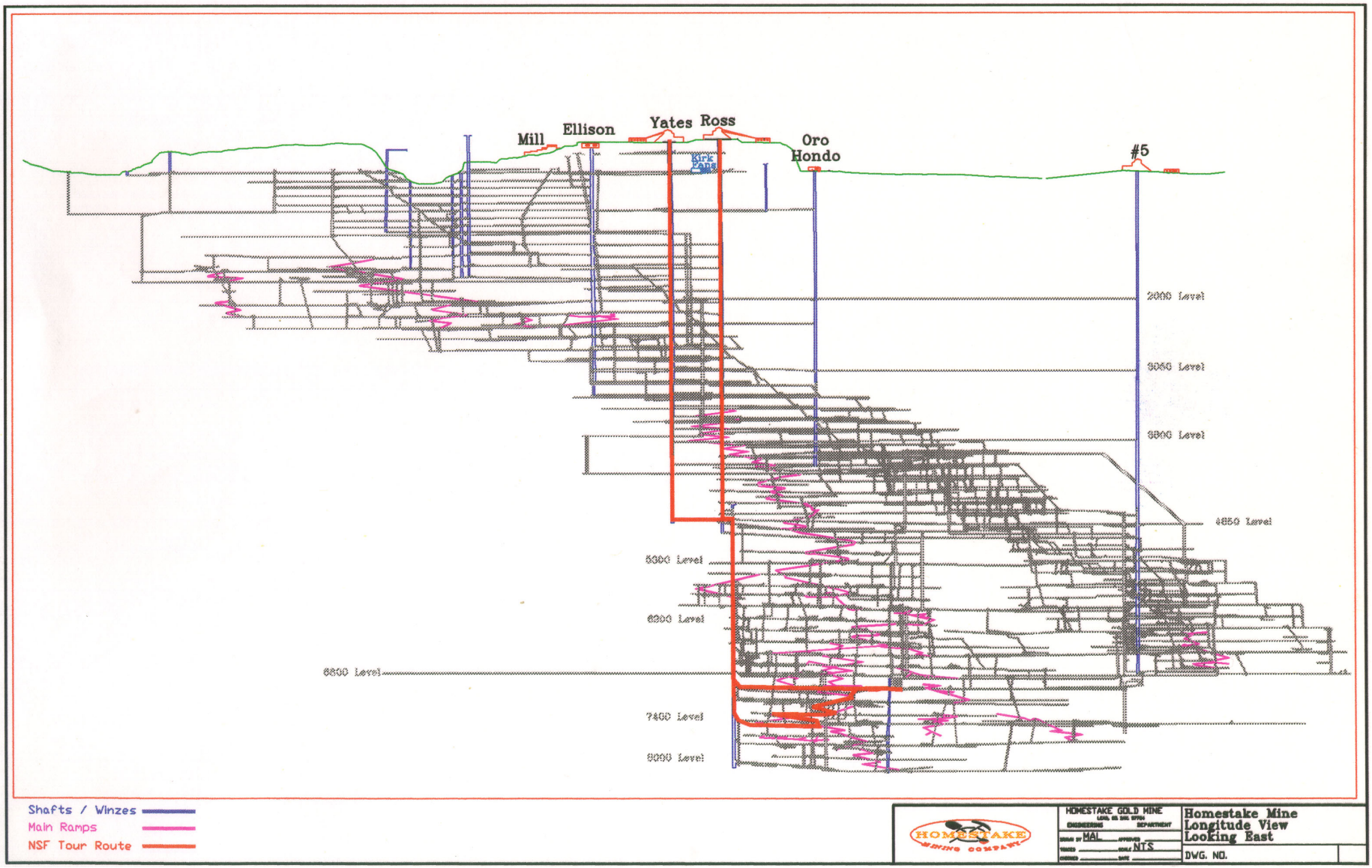
Current

- Received over 70 LOIs
  - Represent all disciplines
  - Broad in and out state participation
- Transfer of property well under way
- $34M in Authority account
- $10M HUD grant for pumping water and rehabilitation

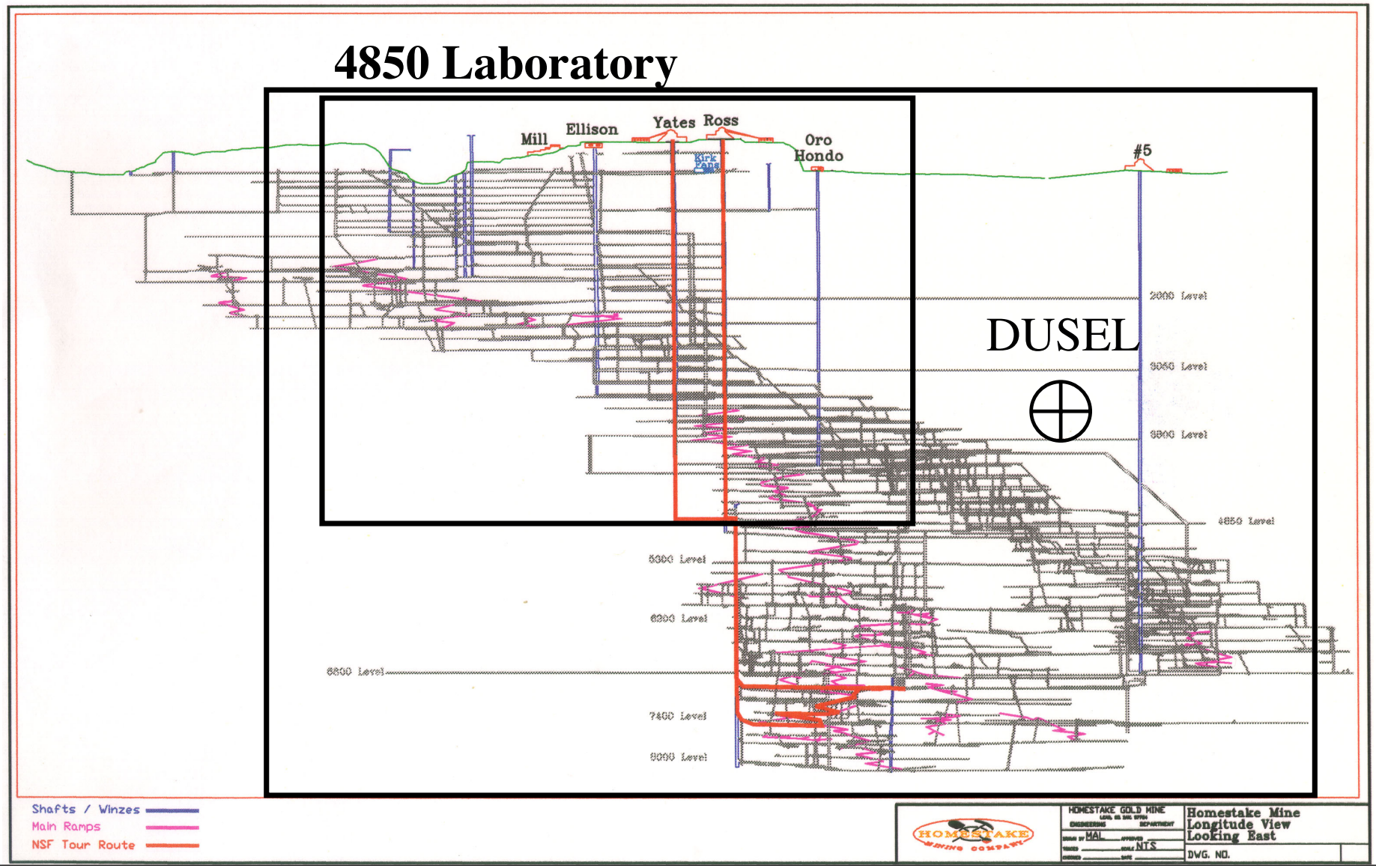
Property to be transferred

- ~186 surface acres
  - Yates, Ross, WTP, Oro Hondo, #5
- All underground ~800 acres
- All mineral rights ~7700 acres
- Water discharge permit
- Core repository


Approximate boundary
Of transferred property
186 acres
Mill Complex
East
Sub
Shops
Open
Cut
Highway 85
Yates Complex
Kirk Fans
Ross Complex
Ross Sub
Oro Hondo Fan
Oro Hondo Sub


Mill
Ellison
Yates
Ross
Oro
Hondo
#5
Girls Camp
2000 Level
3060 Level
3800 Level
4850 Level
5300 Level
6300 Level
6800 Level
7400 Level
8000 Level
Shafts / Winzes
Main Ramps
NSF Tour Route
HOMESTAKE MINING COMPANY
HOMESTAKE GOLD MINE
ENGINEERING DEPARTMENT
DRAWN BY MAI
APPROVED
TRACED
SCALE NTS
CHECKED
DATE
Homestake Mine
Longitude View
Looking East
DWG. NO.

4850 Laboratory



Status of Property Transfer

- Survey and plats completed and approved
- Property Donation Agreement drafted and under review and edits
  - Original document
  - Many parties and needs
  - Very complicated
  - Must be accurate and enduring

Actions following signing of Agreement

- Close and transfer possession within 30 days of signing agreement
- Prior to closing
  - Remodel office space
  - Hire staff with Homestake experience
    - Safety officer
    - Mine engineer
    - Operations Supervisor
    - Adminstrative
  - Transfer all utilities and establish services


25


EMPLOYEE
OF THE
MONTH

Most Important

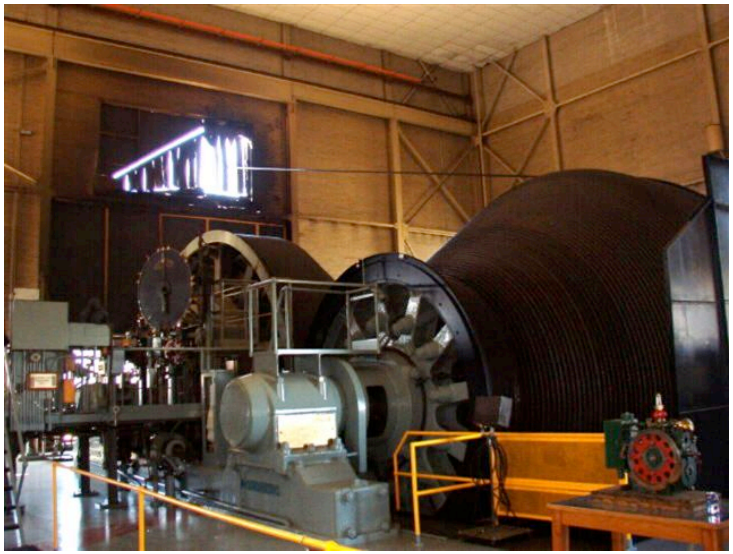
- We must be CAPABLE to take possession and operate the property in ABSOLUTELY SAFE manner

- We must have the qualified and experienced staff in place to operate a mine property with compliance of all

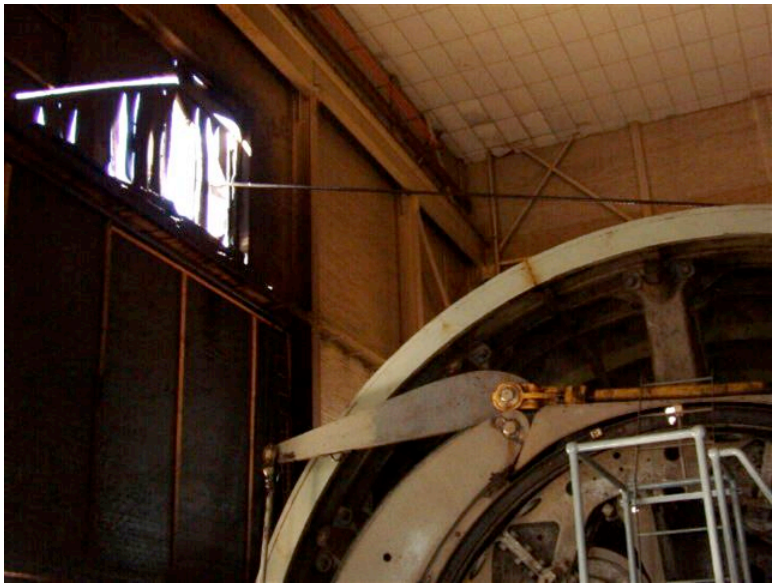
Following are some slides
of the property being

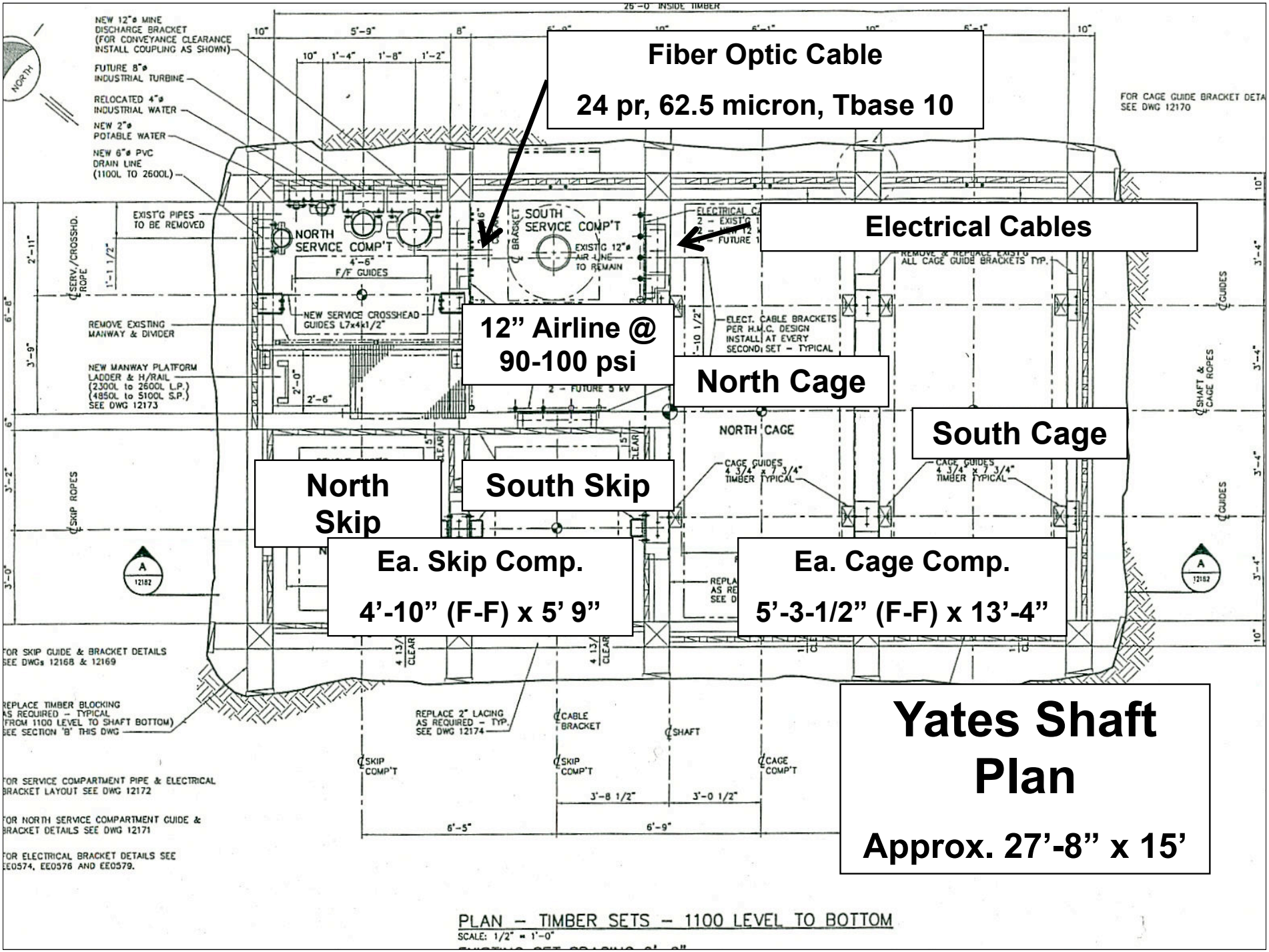

HOMESTAKE
Yates Cage Hoist
Nordberg Mfg. Co
Two 1,250 hp DC Motors
Normal Cage Load = 12,000 lb.
Max Cage Load = 13,400 lb
NORDBERG

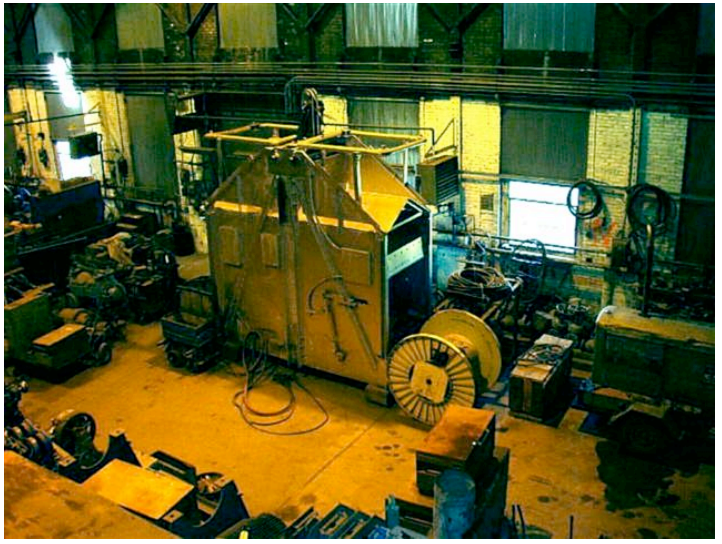

HOMESTAKE
Yates Ore Hoist
Nordberg Mfg. Co
Two 1,500 hp DC Motors
Skip Payload Load = 20,000 lb.
NORDBERG

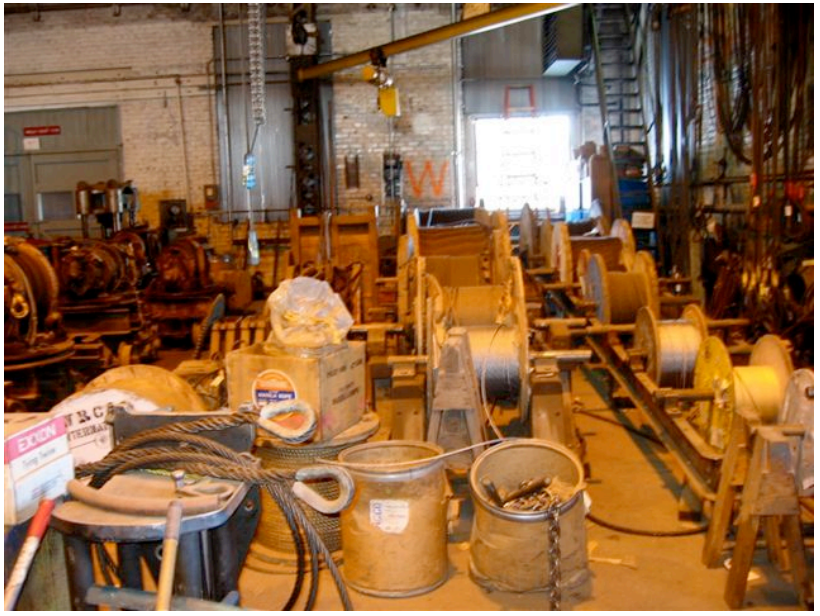



DANGER




Fiber Optic Cable
24 pr, 62.5 micron, Tbase 10
Electrical Cables
12" Airline @ 90-100 psi
North Cage
South Cage
North Skip
South Skip
Ea. Skip Comp.
4'-10" (F-F) x 5' 9"
Ea. Cage Comp.
5'-3-1/2" (F-F) x 13'-4"
Yates Shaft Plan
Approx. 27'-8" x 15'
NORTH SERVICE COMP'T
SOUTH SERVICE COMP'T
NORTH CAGE
PLAN – TIMBER SETS – 1100 LEVEL TO BOTTOM
SCALE: 1/2" = 1'-0"






500
500

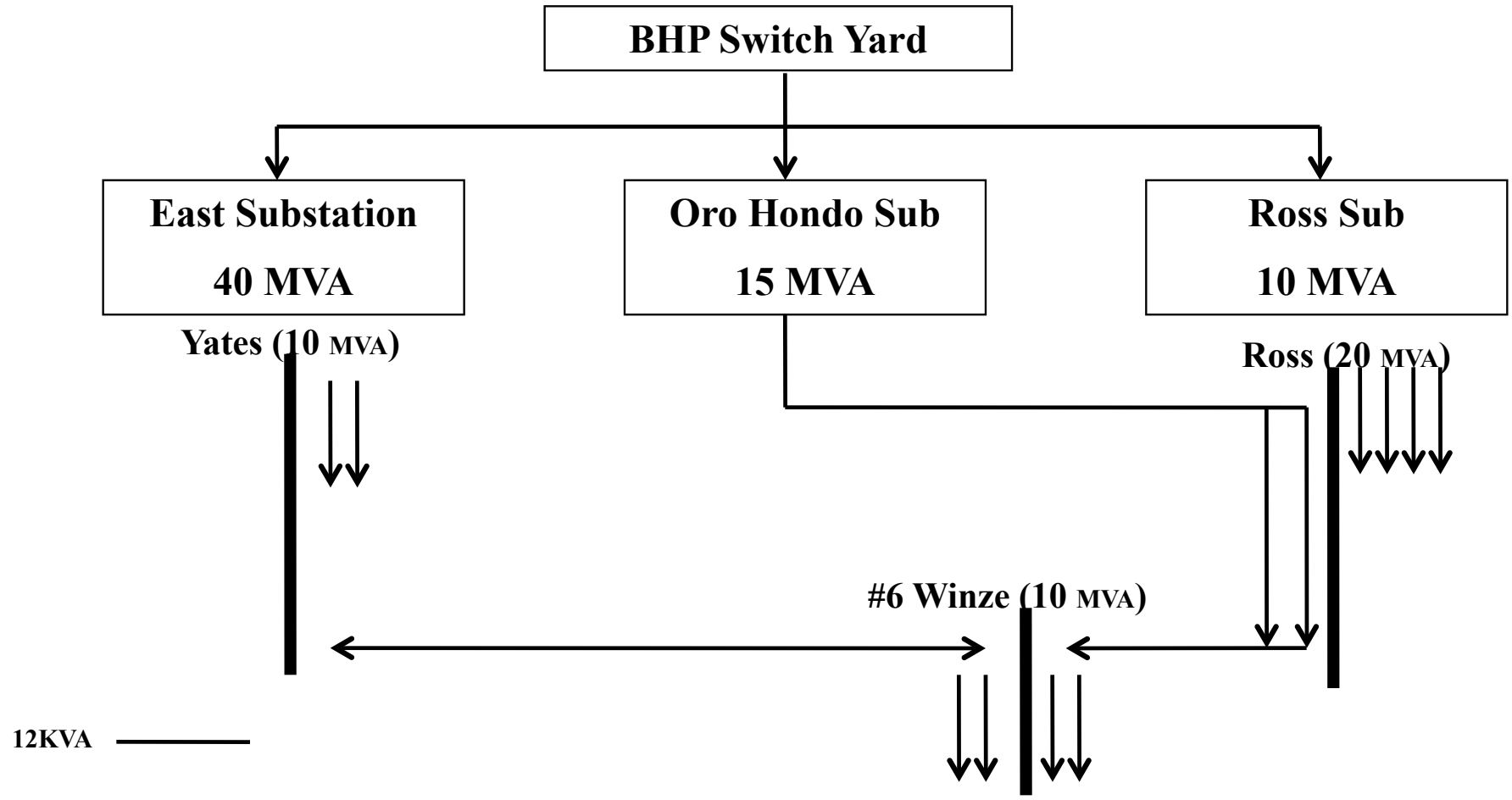

50

Services information

- Electrical
- Water discharge
- Ventilation

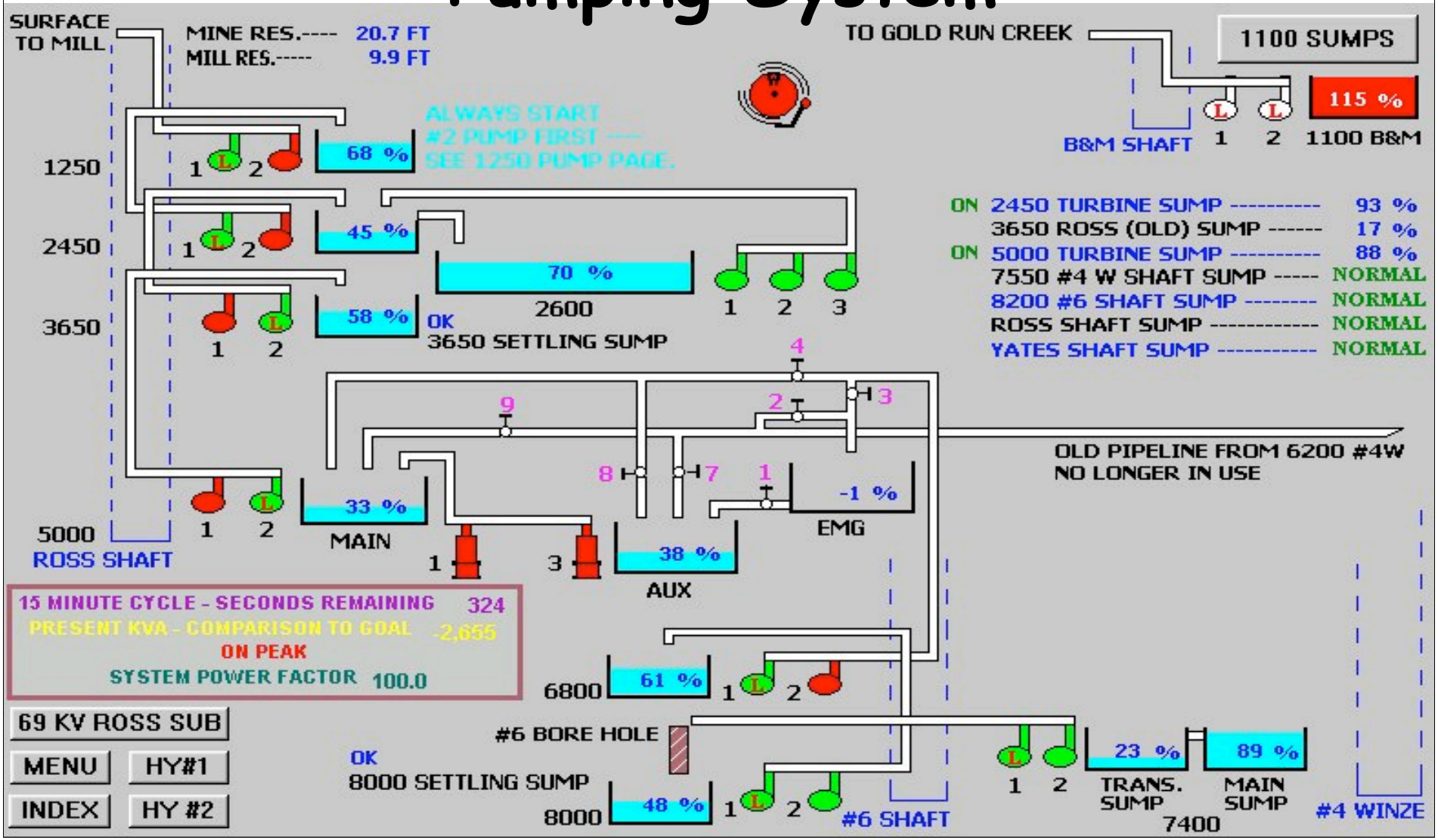
Homestake Mine

Electrical System



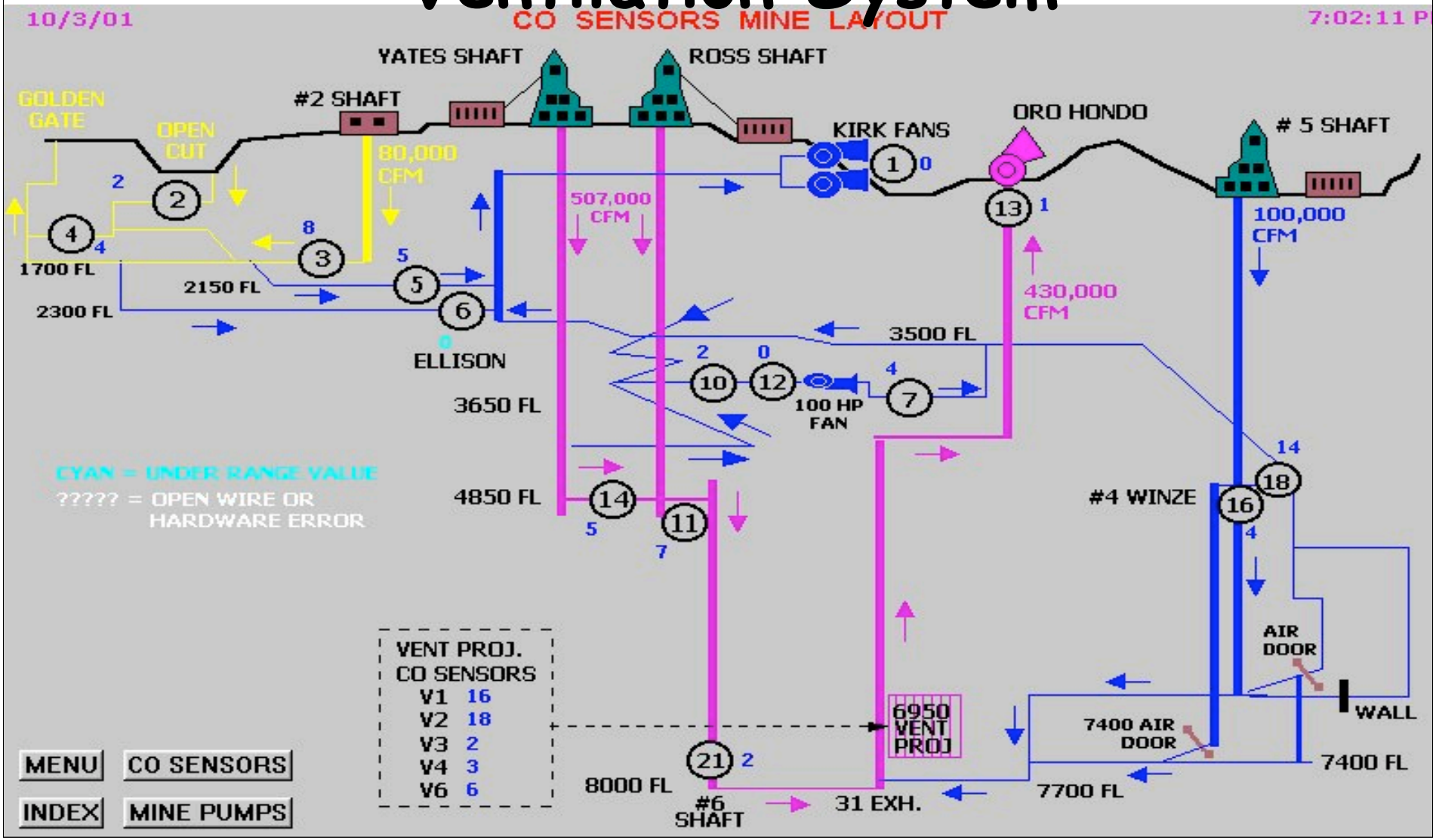
HOMESTAKE MINE

Pumping System



HOMESTAKE MINE

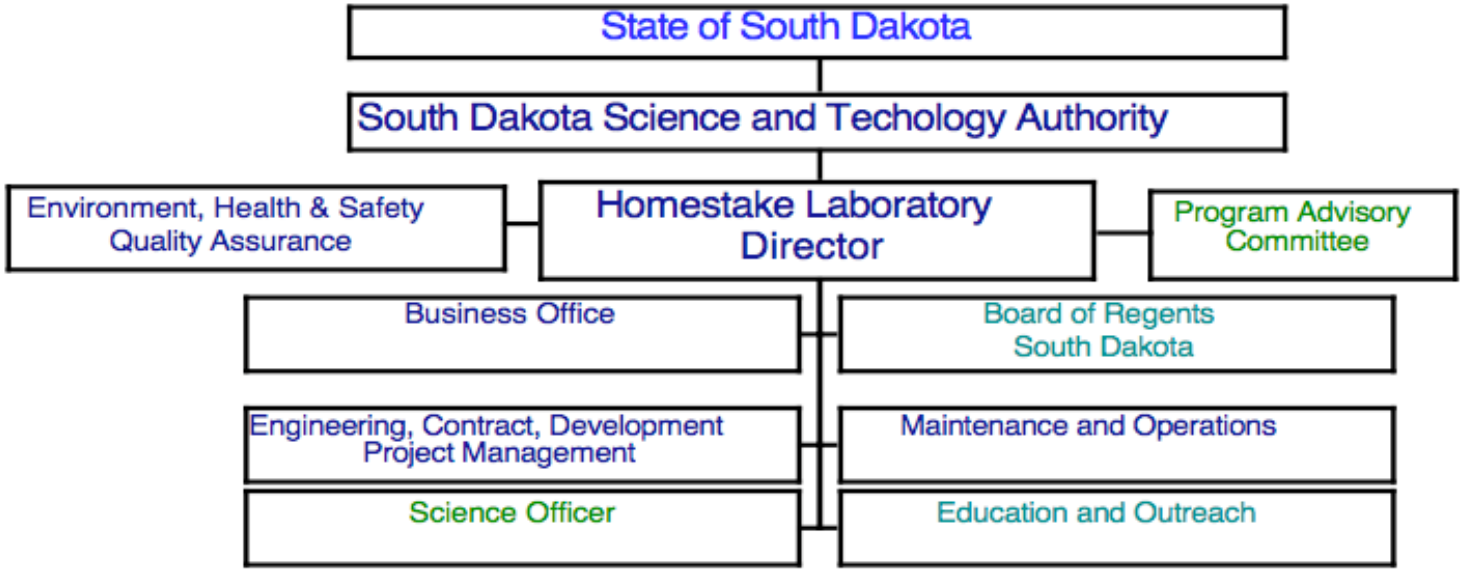
Ventilation System



Management structure

- Interim lab managed by Authority
- Transition with growth to other management structure

Draft Homestake Laboratory
Interim Management Organization



All Projects will undergo:

safety, environment, hazard review

design and engineering review

science review

Projects will have:

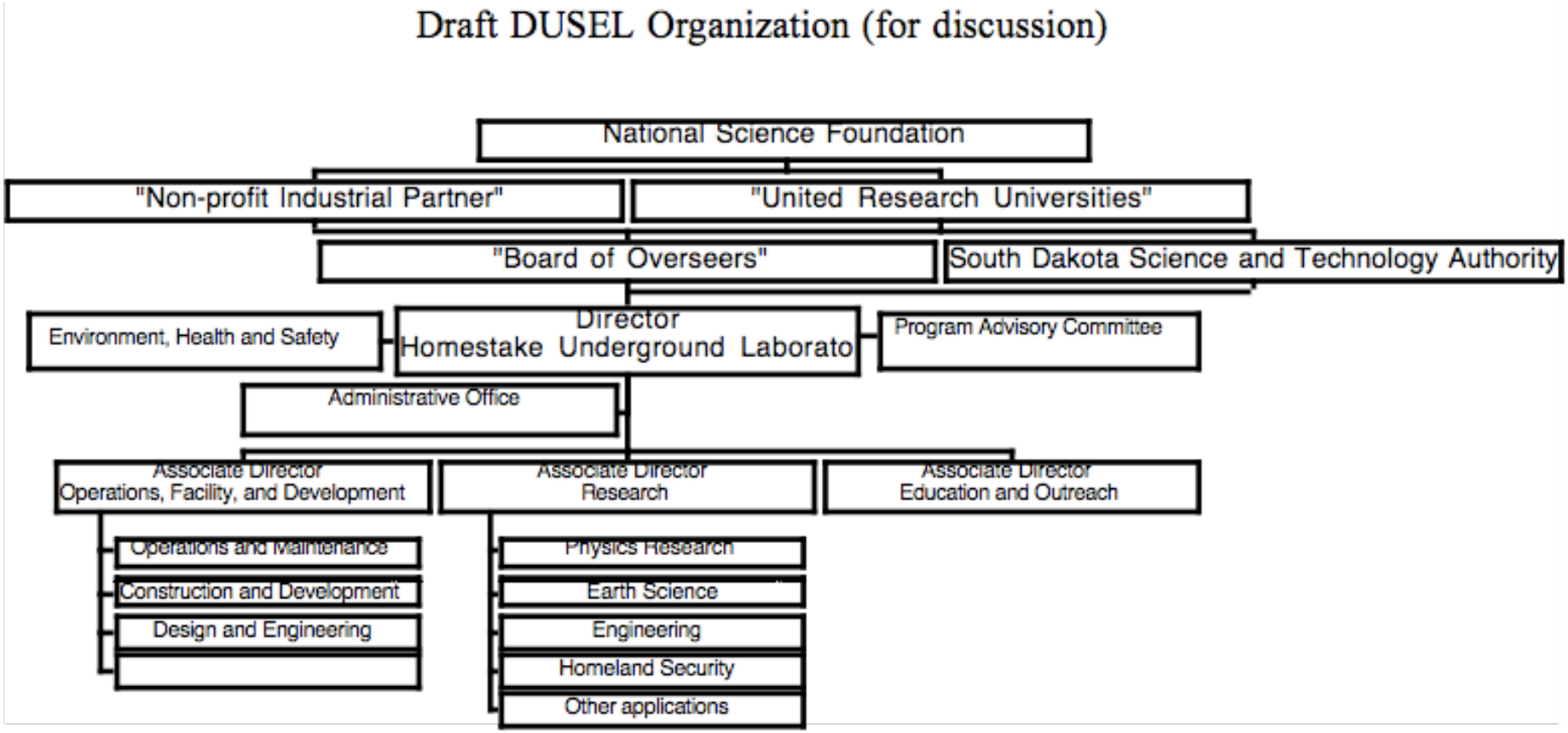
administrative contact

engineering contact

safety contact

science contact

Possible Organization for Homestake - DUSEL



Role of Authority staff following closing

- Safe operation of mine property
- Incorporate PAC recommendations
- Design and engineer rehabilitation
  - Re-establishment of power and services
  - Hoists
  - Shafts
  - Water discharge
  - Space development on 4850
    - Support facilities
    - Room enlargement or modification
  - Convert Yates dry to offices and classrooms

Role of Authority staff following closing

- Refine cost estimates of rehabilitation
- Solicit bids for rehabilitation work
- Manage and supervise contracted work
- Operations of infrastructure

Rehabilitation plan for EIP

- Dynatec produced plan and cost estimates for rehab
- Re-establish power to site
- Re-commission hoists
- Safety inspection as proceed into mine
- Repair shafts
  - Yates replace and repair timbers
  - Ross replace steel in Ross pillar area
  - Replace utilities
    - Re-install transformers
    - New electrical feeds
  - Re-activate pumps above 5000

Other development activities

- Rehab existing space 4850 level, install utilities
- Develop plans for 4850 developments and possibilities
  - Identify underground rock disposal sites
  - Vents and drains
  - Radon-reduced air
  - Custom space development underground
  - Transportation: rail, cages, vehicles, rolling stock
  - Establish support labs and facilities

Other development activities

- Develop Initial 4850 stationary experimental halls
  - Utilize existing rooms and caverns
  - As budget permits modest custom development
  - Establish Development Plans at 4850 and integrate with DUSEL

ANTICIPATED SERVICES

- Safety, including training program
- Access 5 days/week, possibly more
- Data and phone underground
- Transportation for material and personnel
- receiving and storage on surface
- receiving and storage underground
- assembly and work space surface
- office space and communications

ANTICIPATED SERVICES

- basic utilities including redundant AC, Ventilation, HVAC including spot cooling, industrial water, compressed air, existing space underground
- Some engineering design and review

Potential additions

- Additional Engineering and Design support
- Man lift cage upgrade
- Special space
- Clean room